

WHAT IS CLAIMED IS:

1. A reflective display, comprising:
 - (a) a first transparent sheet having:
 - (i) an inwardly protruding structure on an inward side of said first sheet, said structure having a refractive index greater than about 1.75;
 - (ii) an outward viewing surface;
 - (iii) an intense evanescent wave region at an inward side of said structure;
 - (b) a second sheet spaced inwardly from said first sheet to define a reservoir between said first and second sheets;
 - (c) an electrophoresis medium within said reservoir, said medium having a refractive index less than about 1.35;
 - (d) a member within said medium;
 - (e) a first electrode on said inward side of said structure;
 - (f) a second electrode on an outward side of said second sheet; and,
 - (i) a voltage source coupled between said electrodes to apply a voltage across said medium to selectively, electrophoretically move said member into or out of said intense evanescent wave region.
2. A display as defined in claim 1, said first sheet further comprising a nano-composite structure of high refractive index particles suspended in a polymer.
3. A display as defined in claim 1, said member further comprising a plurality of light absorptive particles suspended in said medium.

4. A display as defined in claim 1, wherein said medium is a perfluorinated hydrocarbon liquid.
5. A method of making a reflective display, said method comprising:
 - 5 (a) partially embedding a plurality of approximately spherical high refractive index beads in one side of an elastomeric substrate;
 - 10 (b) removing portions of said beads which are not embedded in said substrate to produce a plurality of approximately hemispherical high refractive index hemi-beads embedded in said substrate, said hemi-beads having substantially flat, substantially coplanar faces;
 - 15 (c) transparently adhering said hemi-bead coplanar faces to a transparent substrate; and,
 - (d) removing said elastomeric substrate.
6. A method as defined in claim 5, wherein said partially embedding further comprises distributing said plurality of approximately spherical beads over said side of said elastomeric substrate and applying a predetermined uniform pressure to said approximately spherical beads to embed approximately one-half of substantially each one of said approximately spherical beads in said side of said elastomeric substrate.
- 25 7. A method as defined in claim 5, wherein said removing portions of said beads further comprises abrading said portions of said beads which are not embedded in said substrate by reciprocation against a flat optical polishing surface.
- 30 8. A method as defined in claim 5, wherein said adhering further comprises transparent adhesive bonding.

9. A method as defined in claim 5, wherein said adhering further comprises transparent adhesive bonding with a transparent spin-coated ultra-violet cured epoxy.
- 5 10. A method as defined in claim 5, wherein said removing said elastomeric substrate further comprises peeling said elastomeric substrate away from said hemi-beads.
- 10 11. A method as defined in claim 5, wherein said removing said elastomeric substrate further comprises dissolving said elastomeric substrate in a solvent.